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(54) **SEARCH AND RESCUE METHOD AND SYSTEM**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A method for locating a transmitter using a receiver which include, but are not limited to the steps of transmitting a plurality of distinctive and orthogonally polarized signals from a transmitter; receiving the transmitted signals at a pair of separated antennas; demodulating the distinctive orthogonal signals received at each of the pair of separated antennas; and determining a direction to the transmitter from the signals received at the pair of antennas. The system for determining the location of a transmitter using a receiver includes, but is not limited to, having a transmitter adapted for orthogonally transmitting a plurality of distinctive signals; a receiver having a pair of separated antennas for receiving the orthogonally transmitted signals; separate demodulators in the receiver for each antenna of the pair of separated antennas for demodulating the distinctive signals; and signal processing circuitry in the receiver adapted for using the demodulated distinctive signals for determining a direction to the transmitter.

32 Claims, 15 Drawing Sheets

